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# Kramer Electronics, Ltd.

# USER MANUAL

## Rack Adapter Models:

**RK-1T2PT**

**RK-2T1PT**

**RK-3T**

**RK-6T**

**RK-9T**

**RK-3TR**

**RK-4PT**

**RK-T2B**

**RK-T2SB**

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## Contents


| | | |
|---|---|---|
| **1** | **Introduction** | **1** |
| **2** | **Getting Started** | **1** |
| **3** | **Overview** | **2** |
| **4** | **Your Kramer Pico TOOLS / TOOLS Rack Adapters** | **3** |
| 4.1 | Your Kramer RK-1T2PT Rack Adapter | 4 |
| 4.2 | Your Kramer RK-2T1PT Rack Adapter | 5 |
| 4.3 | Your Kramer RK-3T Rack Adapter | 6 |
| 4.4 | Your Kramer RK-6T Rack Adapter | 7 |
| 4.5 | Your Kramer RK-9T Rack Adapter | 8 |
| 4.6 | Your Kramer RK-3TR Rack Adapter | 9 |
| 4.7 | Your Kramer RK-4PT Rack Adapter | 10 |
| 4.8 | Your Kramer RK-T2B Rack Adapter | 11 |
| 4.9 | Your Kramer RK-T2SB Rack Adapter | 12 |
| **5** | **Installing Your Rack Adapter** | **13** |
| 5.1 | Installing a Kramer TOOL or a Kramer Pico TOOL | 13 |
| 5.2 | Installing a Kramer Extrusion Type TOOL | 14 |


## Figures


Figure 1: RK-1T2PT Rack Adapter 4
Figure 2: RK-2T1PT Rack Adapter 5
Figure 3: RK-3T Rack Adapter 6
Figure 4: RK-6T Rack Adapter 7
Figure 5: RK-9T Rack Adapter 8
Figure 6: RK-3TR Rack Adapter 9
Figure 7: RK-4PT Rack Adapter 10
Figure 8: RK-T2B Rack Adapter 11
Figure 9: RK-T2SB Rack Adapter 12
Figure 10: The Connecting Bracket 14



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# 1 Introduction

Welcome to Kramer Electronics (since 1981): a world of unique, creative and affordable solutions to the infinite range of problems that confront the video, audio and presentation professional on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better! Our 500-plus different models now appear in 8 Groups[1], which are clearly defined by function. Congratulations on purchasing your Kramer rack adapter, which is ideal for mounting Kramer Pico TOOLS /TOOLS in a standard 19" rack.

The package includes the following items:

- 19" rack adapter: **RK-1T2PT**, **RK-2T1PT**, **RK-3T**, **RK-6T**, **RK-9T**, **RK-3TR**, **RK-4PT**, **RK-T2B**, or **RK-T2SB**
- Additional mechanical parts (blank panels, screws, nuts and so on)
- This user manual[2]

# 2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment
- Review the contents of this user manual
- Use Kramer high performance high resolution cables[3]

1 GROUP 1: Distribution Amplifiers; GROUP 2: Video and Audio Switchers, Matrix Switchers and Controllers; GROUP 3: Video, Audio, VGA/XGA Processors; GROUP 4: Interfaces and Sync Processors; GROUP 5: Twisted Pair Interfaces; GROUP 6: Accessories and Rack Adapters; GROUP 7: Scan Converters and Scalers; and GROUP 8: Cables and Connectors

2 Download up-to-date Kramer user manuals from the Internet at this URL: http://www.kramerelectronics.com

3 The complete list of Kramer cables is on our Web site at http://www.kramerelectronics.com



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## 3 Overview

We recommend that you:

- Have a Philips screwdriver and an Allen screwdriver available
- Disconnect the mains voltage and all cables connected to each machine that is being mounted in the rack adapter before proceeding with the installation
- Connect only good quality connection cables, thus avoiding interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables)
- Avoid interference from neighboring electrical appliances and positioning your rack adapter on the rack away from moisture, excessive sunlight and dust
- Observe the following CAUTION and WARNINGS with regard to the Kramer Pico TOOLS /TOOLS:

**Caution** – No operator-serviceable parts inside unit.

**Warning** – Use only the Kramer Electronics input power wall adapter that is provided with this unit[1].

**Warning** – Disconnect power and unplug unit from wall before installing or removing device or servicing unit.

1 For example: model number AD2512C, part number 2535-000251


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## 4 Your Kramer Pico TOOLS / TOOLS Rack Adapters

This section describes the following rack adapters:

- **RK-1T2PT**, see section 4.1
- **RK-2T1PT**, see section 4.2
- **RK-3T**, see section 4.3
- **RK-6T**, see section 4.4
- **RK-9T**, see section 4.5
- **RK-3TR**, see section 4.6
- **RK-4PT**, see section 4.7
- **RK-T2B**, see section 4.8
- **RK-T2SB**, see section 4.9


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### 4.1 Your Kramer RK-1T2PT Rack Adapter

The **RK-1T2PT** rack adapter is suitable for mounting a Kramer TOOL and two Kramer Pico TOOLS into a 19" 1U rack space (see Figure 1):

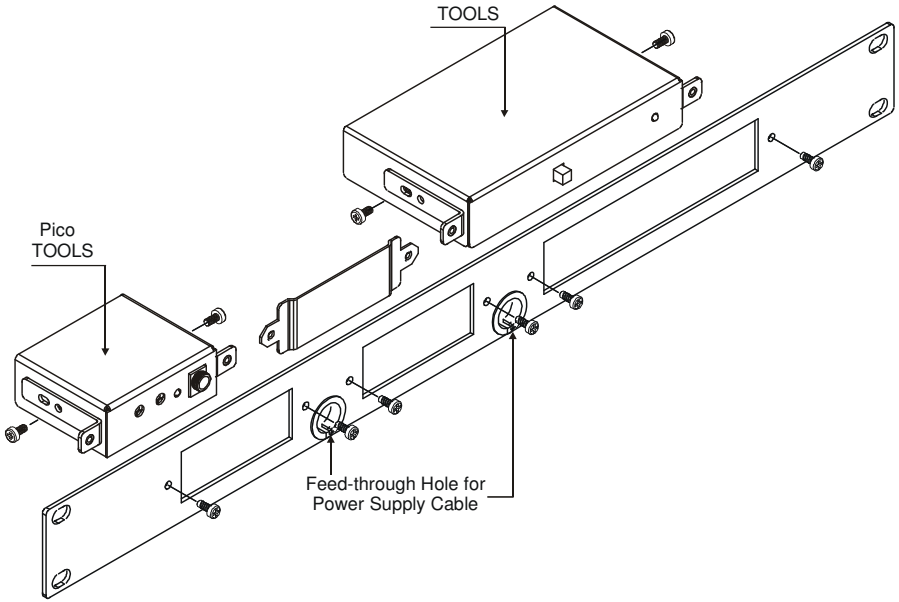


*Figure 1: RK-1T2PT Rack Adapter*

You can order additional blank panels to cover a Pico TOOLS opening[1] and/or a TOOLS opening[2] on the rack adapter

1 Part number 60-900010

2 Part number 60-900011


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### 4.2 Your Kramer RK-2T1PT Rack Adapter

The **RK-2T1PT** rack adapter is suitable for mounting a Kramer Pico TOOL and two Kramer TOOLS (extruded or regular) into a 19" 1U rack space (see Figure 2):

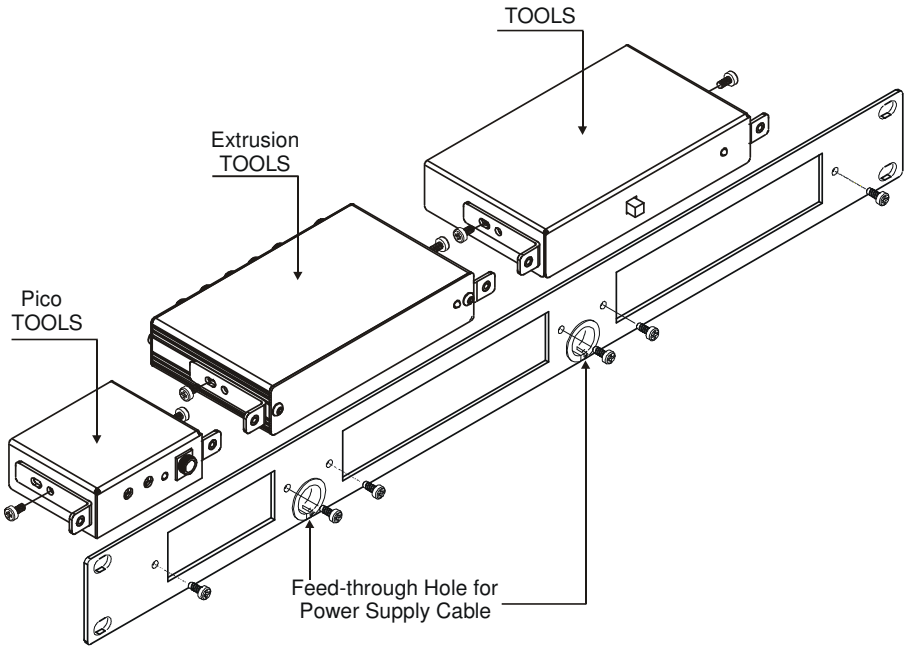


*Figure 2: RK-2T1PT Rack Adapter*

You can order additional blank panels to cover a Pico TOOLS opening[1] and/or a TOOLS opening[2] on the rack adapter

1 Part number 60-900010

2 Part number 60-900011



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### 4.3 Your Kramer RK-3T Rack Adapter

The **RK-3T** rack adapter is suitable for mounting three Kramer TOOLS (extruded or regular) into a 19" 1U rack space (see Figure 3):

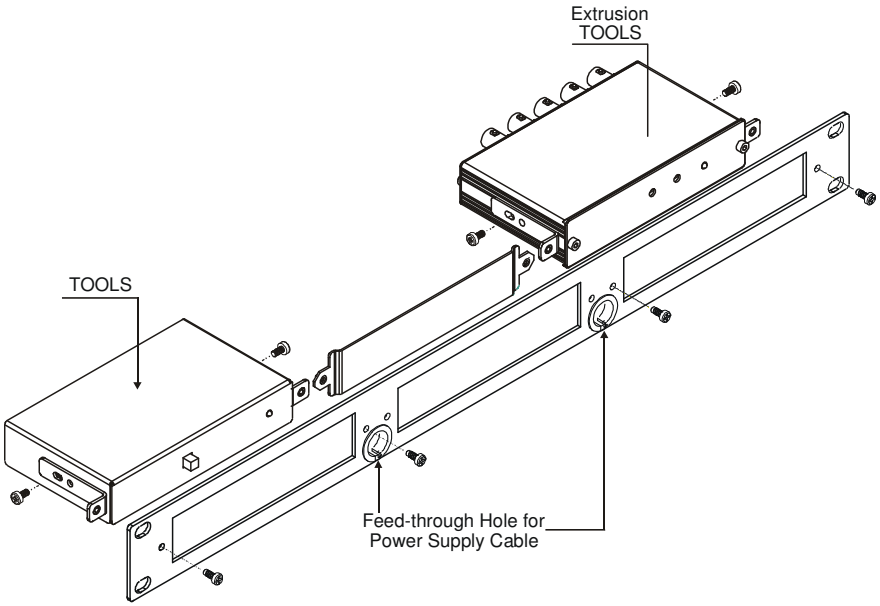


*Figure 3: RK-3T Rack Adapter*

You can order an additional blank panel to cover a TOOLS opening[1] on the rack adapter

1 Part number 60-900011


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### 4.4 Your Kramer RK-6T Rack Adapter

The **RK-6T** rack adapter is suitable for mounting six Kramer TOOLS (extruded or regular) into a 19" 2U rack space (see Figure 4):

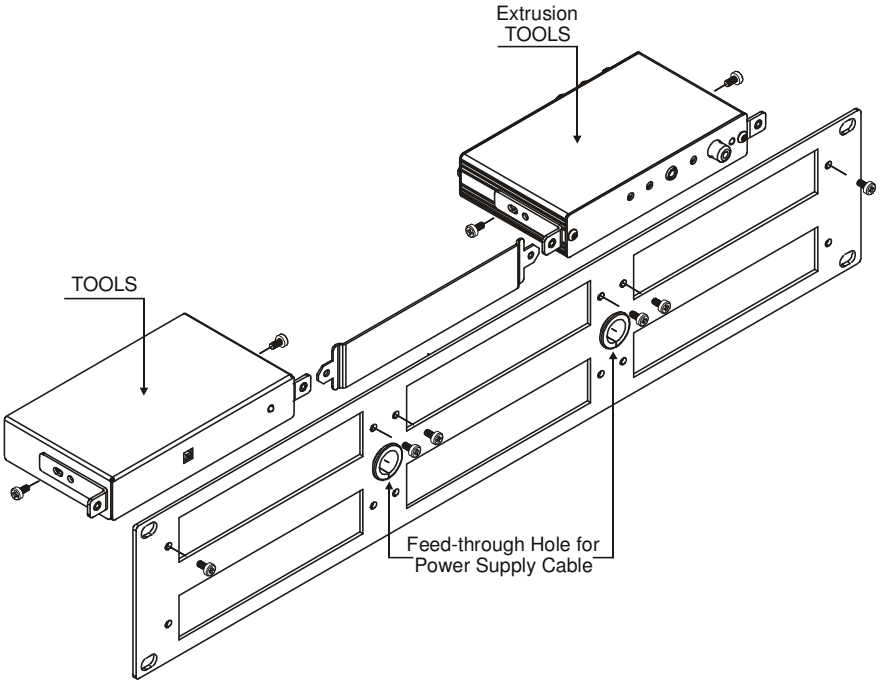


*Figure 4: RK-6T Rack Adapter*

You can order an additional blank panel to cover a TOOLS opening[1] on the rack adapter

1 Part number 60-900011


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### 4.5 Your Kramer RK-9T Rack Adapter

The **RK-9T** rack adapter is suitable for mounting nine Kramer TOOLS (extruded or regular) into a 19" 3U rack space (see Figure 5):

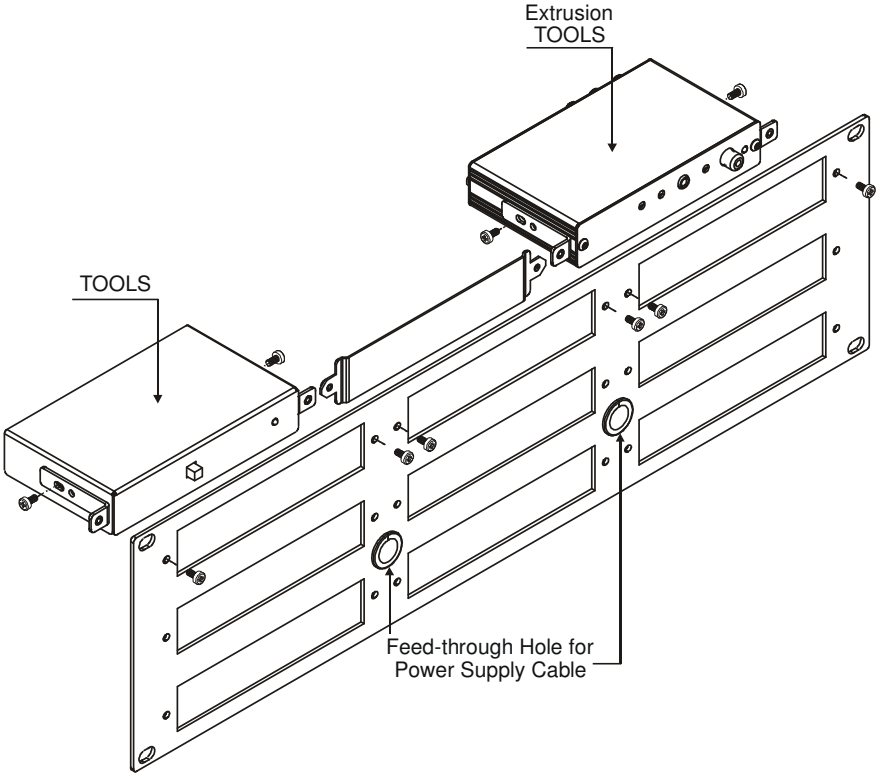


*Figure 5: RK-9T Rack Adapter*

You can order an additional blank panel to cover a TOOLS opening[1] on the rack adapter

1 Part number 60-900011


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### 4.6 Your Kramer RK-3TR Rack Adapter

The **RK-3TR** rack adapter is suitable for mounting three Kramer TOOLS—**TR-1**, **TR-1A**, **TR-2A**, **TR-3**, **TR-1YC**, and/or **TR-2YC**—into a 19" 1U rack space (see Figure 6):

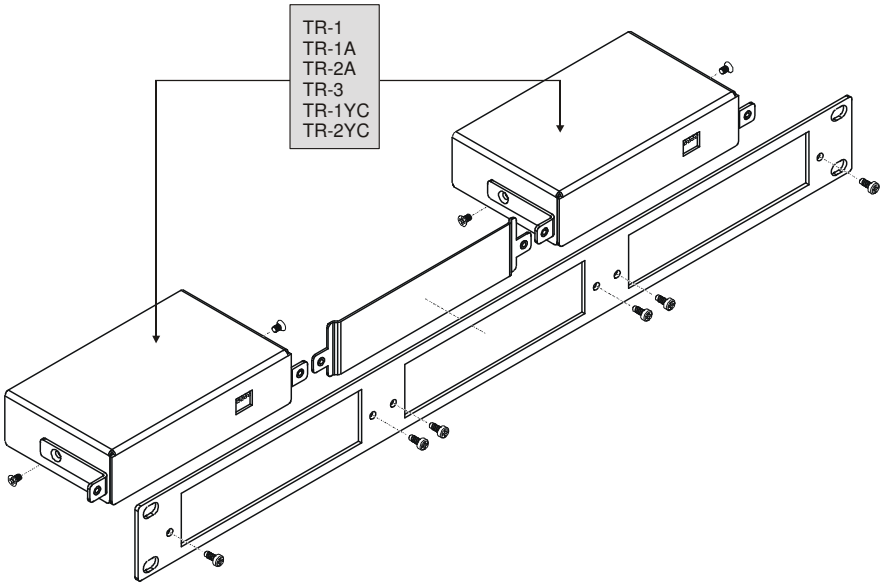


*Figure 6: RK-3TR Rack Adapter*

You can order an additional blank panel to cover a TR-TOOLS opening[1] on the rack adapter

1 Part number 60-900012


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### 4.7 Your Kramer RK-4PT Rack Adapter

The **RK-4PT** rack adapter is suitable for mounting four Kramer Pico TOOLS into a 19" 1U rack space (see Figure 7):

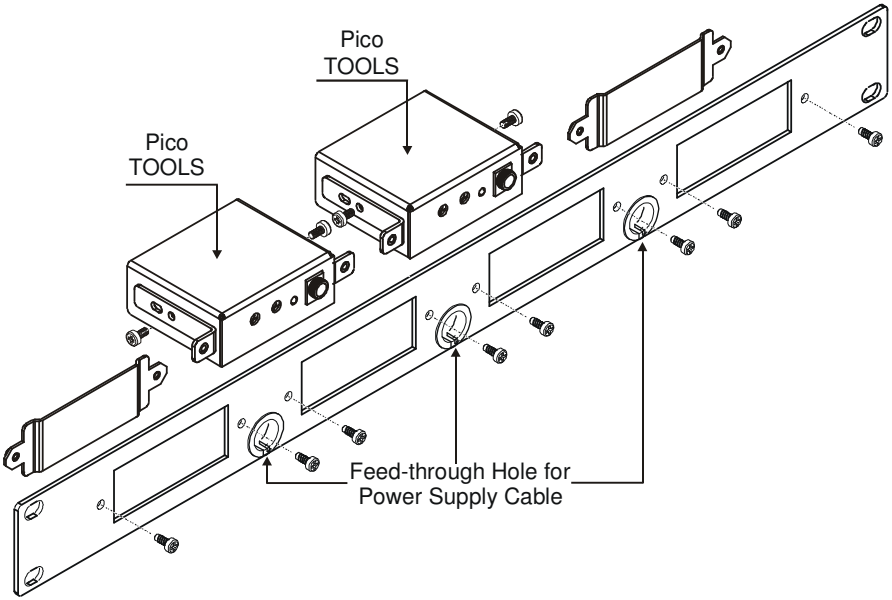


*Figure 7: RK-4PT Rack Adapter*

You can order an additional blank panel to cover a Pico TOOLS opening[1]

1 Part number 60-900010


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### 4.8 Your Kramer RK-T2B Rack Adapter

The **RK-T2B** rack adapter is suitable for mounting two large-size Kramer TOOLS into a 19" 1U rack space (see Figure 8):

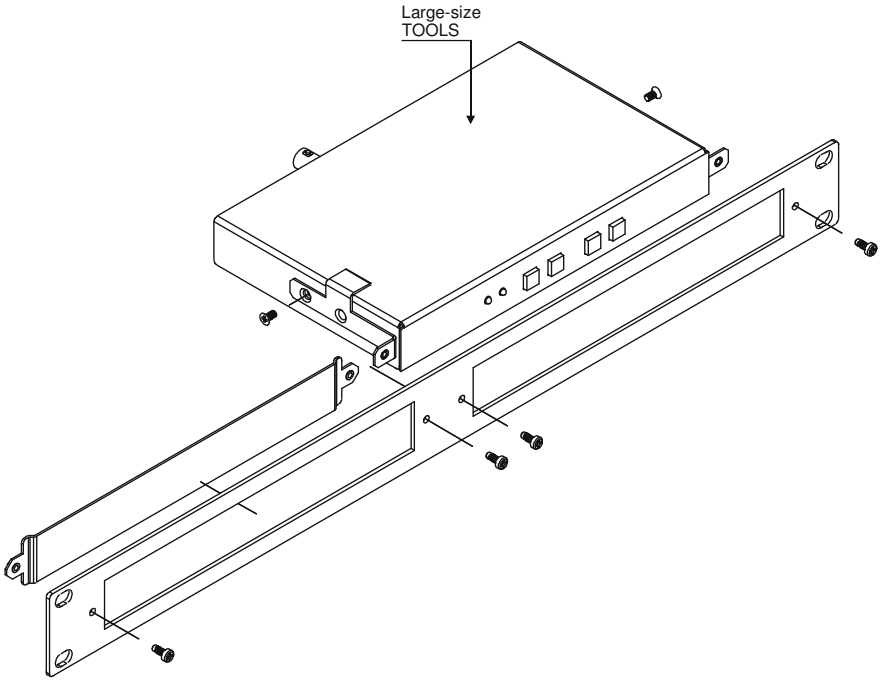


*Figure 8: RK-T2B Rack Adapter*


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### 4.9 Your Kramer RK-T2SB Rack Adapter

The **RK-T2SB** rack adapter is suitable for mounting one regular size Kramer TOOL and one large size Kramer TOOLS into a 19" 1U rack space (see Figure 9):

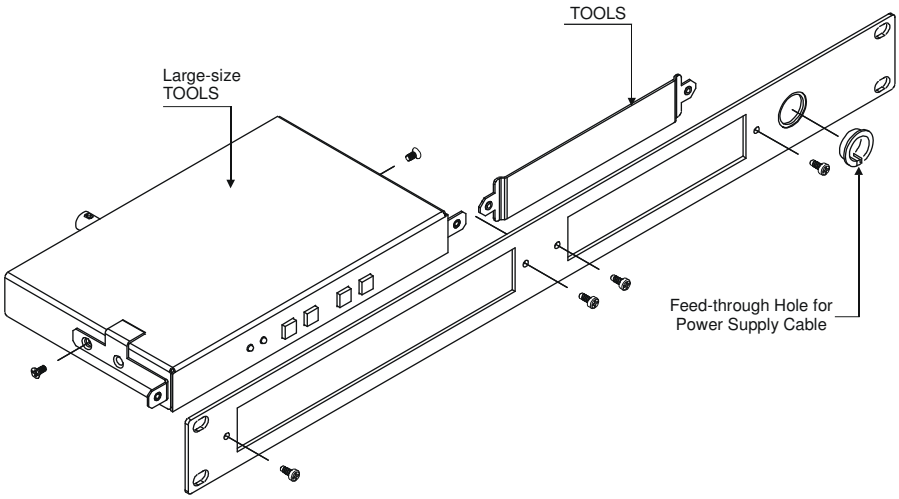


*Figure 9: RK-T2SB Rack Adapter*

You can order an additional blank panel to cover a regular size TOOLS opening[1]

1 Part number 60-900011


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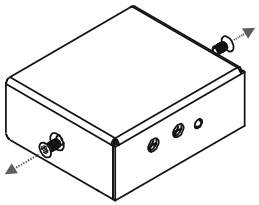
# 5 Installing Your Rack Adapter

This section describes how to install Kramer TOOLS and Pico TOOLS.

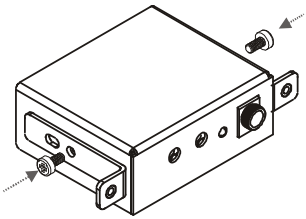
## 5.1 Installing a Kramer TOOL or a Kramer Pico TOOL

When connecting a Kramer TOOL or a Pico TOOL:

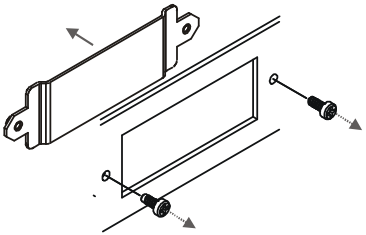
1. Remove the side panel screws (one on each side) from the TOOL.



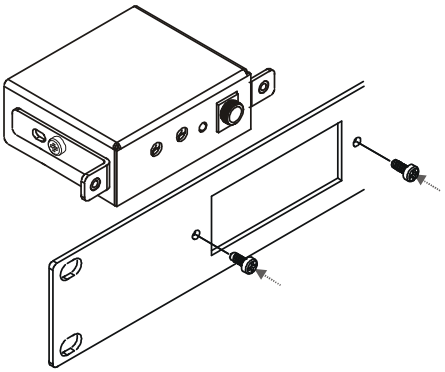
2. Insert the screws provided with the rack adapter kit (one on each side) through the correct holes on the brackets (see Figure 10).



3. If required, remove the blank panels from the rack adapter openings.



4. Use the same screws to attach the bracket ears onto the rack adapter panel from its rear side.
   If a blank panel is not attached to the rack adapter opening, use two M3x8 Philips screws (provided with the kit) to connect the bracket ears to the rack adapter.





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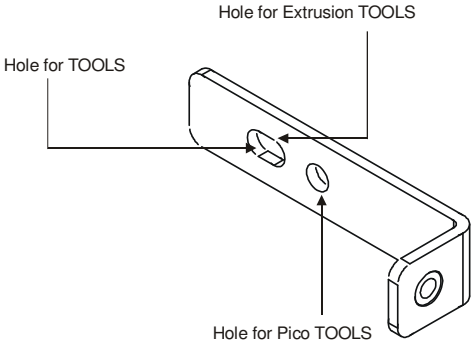


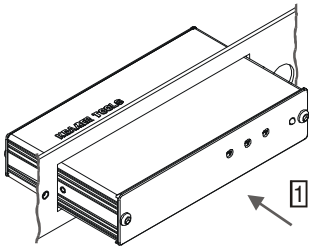

*Figure 10: The Connecting Bracket*

## 5.2 Installing a Kramer Extrusion Type TOOL

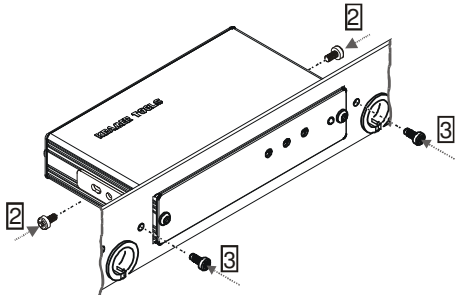
When installing an extrusion type Kramer TOOL, check if the front panel is protruding. If not, follow the instructions in section 5.1 to connect it to the rack adapter.

If the front panel is protruding, do the following:

1. Insert the TOOL through the appropriate front opening of the rack adapter.




2. Connect the brackets to the TOOL using two[1] of the screws provided with the rack adapter kit[2].
3. Connect the brackets to the rack adapter.




1 The number of screws provided with each rack model differs

2 Since extrusion TOOLS do not have screws attached to each side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**LIMITED WARRANTY**

Kramer Electronics (hereafter *Kramer*) warrants this product free from defects in material and workmanship under the following terms.

**HOW LONG IS THE WARRANTY**

Labor and parts are warranted for seven years from the date of the first customer purchase.

**WHO IS PROTECTED?**

Only the first purchase customer may enforce this warranty.

**WHAT IS COVERED AND WHAT IS NOT COVERED**

Except as below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed by Kramer, or which is not purchased from an authorized Kramer dealer. If you are uncertain as to whether a dealer is authorized, please contact Kramer at one of the agents listed in the Web site www.kramerelectronics.com.
2. Any product, on which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
   i) Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature
   ii) Product modification, or failure to follow instructions supplied with the product
   iii) Repair or attempted repair by anyone not authorized by Kramer
   iv) Any shipment of the product (claims must be presented to the carrier)
   v) Removal or installation of the product
   vi) Any other cause, which does not relate to a product defect
   vii) Cartons, equipment enclosures, cables or accessories used in conjunction with the product

**WHAT WE WILL PAY FOR AND WHAT WE WILL NOT PAY FOR**

We will pay labor and material expenses for covered items. We will not pay for the following:

1. Removal or installations charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls or programming. These costs are the responsibility of the Kramer dealer from whom the product was purchased.
3. Shipping charges.

**HOW YOU CAN GET WARRANTY SERVICE**

1. To obtain service on you product, you must take or ship it prepaid to any authorized Kramer service center.
2. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage, and should be included in any shipment of the product. Please also include in any mailing a contact name, company, address, and a description of the problem(s).
3. For the name of the nearest Kramer authorized service center, consult your authorized dealer.

**LIMITATION OF IMPLIED WARRANTIES**

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

**EXCLUSION OF DAMAGES**

The liability of Kramer for any effective products is limited to the repair or replacement of the product at our option. Kramer shall not be liable for:

1. Damage to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss; or:
2. Any other damages, whether incidental, consequential or otherwise. Some countries may not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from place to place.

**NOTE:** All products returned to Kramer for service must have prior approval. This may be obtained from your dealer.

This equipment has been tested to determine compliance with the requirements of:

| | |
|---|---|
| EN-50081: | "Electromagnetic compatibility (EMC); generic emission standard. Part 1: Residential, commercial and light industry" |
| EN-50082: | "Electromagnetic compatibility (EMC) generic immunity standard. Part 1: Residential, commercial and light industry environment". |
| CFR-47: | FCC Rules and Regulations: Part 15: "Radio frequency devices Subpart B Unintentional radiators" |

**CAUTION!**

- Servicing the machines can only be done by an authorized Kramer technician. Any user who makes changes or modifications to the unit without the expressed approval of the manufacturer will void user authority to operate the equipment.
- Use the supplied DC power supply to feed power to the machine.
- Please use recommended interconnection cables to connect the machine to other components.



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**For the latest information on our products and a list of Kramer distributors, visit our Web site: www.kramerelectronics.com, where updates to this user manual may be found.**
**We welcome your questions, comments and feedback.**

**Caution**

**Safety Warning**:
Disconnect the unit from the power supply before opening/servicing.

PN: 2900- 000243 Rev: 3

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